



State of Utah

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OK

May 31, 2002

TO: Internal File

FROM: Susan M. White, Senior Reclamation Biologist *ASW*
Priscilla Burton, Soils Reclamation Specialist *PB*

RE: Division Order for 4th East Portal Development, Consolidation Coal Company,
Emery Deep Mine, C/015/015-DO02C, Internal File

SUMMARY:

The Division approved and the Mining and Reclamation Plan was amended for the 4th East Portals in 1990. The portals were never constructed. A Division Order was issued May 3, 2002 requiring surveys and studies to be updated prior to construction, after the Permittee notified the Division in April of 2002 of their intent to construct the 4th East Portals.

A response to the Division Order was received on May 17, 2002. This memo reviews that response. The following are issues and recommended solutions that will be revisited during the review of the 4th East Portal amendment and reclamation feasibility:

1. The Permittee must minimize adverse impacts during coal mining and reclamation activities and provide enhancement measures. This could be done by salvaging large slabs of slickrock during blasting and utilizing them either on the surface or in the reconstructed drainage during reclamation.
2. As referenced in the Permittee's submittal letter dated May 17, 2002, the field visit to the mine with DWR recommended fish and macroinvertebrate studies. These studies must be conducted prior to operation.
3. The Permittee must stabilize the topsoil pile. This could be done by establishing vegetation and a biological crust. This may require irrigation during the first season after seeding. The normal seeding time for this area is late June through July.

The response to the Division Order (DO02C) can be approved provided the following stipulations are attached to the approval:

1. Prior to construction the area shown as saltgrass on the Vegetation Map in Appendix

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2. VIII-1 must be flagged and not disturbed until the U.S. Army Corps of Engineers has determined if the area is a jurisdictional wetland.
3. Prior to disturbance of the 4th East Portal site, Consol must relay the information concerning map unit delineation and salvage depths gathered by the consulting soil scientist to the Division.
4. The Permittee must salvage the surface soils (from 0 – 2 inches) during vegetation removal and reapply the vegetation and soil mix as mulch to the surface of the gouged topsoil stockpile, unless other methods are demonstrated to be as effective.

TECHNICAL ANALYSIS:

GENERAL CONTENTS

PUBLIC NOTICE AND COMMENT

Regulatory References: 30 CFR 778.21; 30 CFR 773.13; R645-300-120; R645-301-117.200.

Analysis:

The Division approved and the Mining and Reclamation Plan amended for the 4th East Portals in 1990. The portals were never constructed. Now in 2002, it is not clear if in the original approval a public notice was given that the northeast portion of the 22 acre disturbance is within 100 feet of Emery County Road #915.

An affidavit of publication is provided from the Sun Advocate and the Emery County Progress stating that the notice was published for one issue on April 30, 2002. The notice states that written comments or requests for hearings must be made to the Division within 30 days of the last publication. Thirty days is May 30, 2002. The Division received no comments. The public notice also limits the Permittee to constructing only a fence and berm within 100 feet of the outside right-of-way line of the road (Appendix 1-8).

Activities within 100 feet of a public road require approvals from the authority with jurisdiction over the road. Permit #200230 issued by Emery County allows the Permittee to construct a fence and drainage berm no closer than 33 feet from the center of the road (Appendix 1-8). Specific requirements to control dust, proper signing, posting for safety, and road repairs are stipulated for construction of the fence and drainage berm. No other activities are to occur within 100 feet of the public road or on the public road.

Based on the fact that the Division received no public comment and a Roadway Encroachment Permit was issued by Emery County the Division finds that the interest of the public will be protected.

Findings:

The information provided in the permit application is considered adequate to meet the minimum Public Notice and Comment requirements of the regulations.

ENVIRONMENTAL RESOURCE INFORMATION

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

HISTORIC AND ARCHEOLOGICAL RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.12; R645-301-411.

Analysis:

In May 2002, Montgomery Archaeological Consultants conducted a cultural resource inventory for the proposed disturbance. The survey consisted of a 100% pedestrian coverage. Kristen Jensen, State History, searched files for previous inventories and records. The survey resulted in the location of 4 isolated chert artifacts. A determination of no historic properties affected was recommended to the State Historic Preservation Officer (SHPO).

The Division received a concurrence of No Historic Properties Affected based on the Montgomery Archaeological Consultants report from SHPO, dated May 24, 2002.

Findings:

The information provided in the permit application is considered adequate to meet the minimum Historic and Archeological Resource Information requirements of the regulations.

FISH AND WILDLIFE RESOURCE INFORMATION

Regulatory Reference: 30 CFR 784.21; R645-301-322.

Analysis:

On February 19, 2002 DWR wildlife biologists and the Division met on site to discuss wildlife issues related to reopening a mine that has been idled for over 15 years (see field visit memo dated February 28, 2002). At that time the mine was investigating several options for developing the coal reserves. The possibility of opening the 4th East Portals was mentioned and the group visited the site. DWR had no real concerns and did not request any additional surveys for this 4th East Portal area.

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However, they did request that macroinvertebrate studies be done in Quitchupah Creek, immediately below the confluence with Christiansen Wash. A qualified person should conduct baseline surveys in the spring and fall, on standardized dates. The surveys should be done every year for two years and then every third year after that. Also a fish survey should be done in Quitchupah Creek at the facilities area. Louis Berg, DWR, should be contacted concerning the survey. Ivie Creek contains flannelmouth suckers, bluehead suckers, leatherside chubs, speckled dace, and fathead minnows. The first three of these species are on Utah's sensitive species list. Quitchupah Creek and Christiansen Wash are tributaries to Ivie Creek.

The Division initiated Section 7 consultation with the U.S. Fish and Wildlife Service on May 9, 2002. They responded with a list of endangered (E), threatened (T), and candidate (C) species that may occur in the area of influence. The T & E species are listed below. Each species is evaluated for occurrence in the 4th East Portal project area.

Common Name		Habitat	Potential Occurance
Barneby Reed-mustard	E	Occurs on the Chinle Formation,	No Chinle Formation in project area.
Jones Cycladenia	T	Gypsiferous saline soils on the Chinle, Cutler, and Summerville Formations.	Formations not in project area.
Last Chance Townsendia	T	Salt desert shrub and PJ on clay or clay silt soils of Arapien and Mancos Shale.	Potential to occur. 100% pedestrian survey of area in May 2002, not found in project area.
Maguire Daisy	T	Occurs on sands from Wingate, Chinle, and Navajo Sandstone Formations.	Formations not in project area
San Rafael Cactus	E	Occurs in PJ limestone gravels.	Potential to occur. A 100% pedestrian survey of area in May 2002, not found in project area.
Winkler Cactus	T	Salt desert shrub communities.	Potential to occur. A 100% pedestrian survey of area in May 2002 and not found in project area.
Wright Fishhook Cactus	E	Salt desert shrub to Juniper on the Mancos Shale.	Potential to occur. A 100% pedestrian survey of area in May 2002 and not found in project area.
Bonytail Chub	E	Endangered fish of the Colorado River.	Water depletions may affect but less than 100 acre-feet and no mitigation required.
Colorado Pikeminnow	E	Endangered fish of the Colorado River.	Water depletions may affect, but use is less than 100 acre-feet, no mitigation required.

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Humpback Chub	E	Endangered fish of the Colorado River.	Water depletions may affect but use is less than 100 acre-feet, no mitigation required.
Razorback Sucker	E	Endangered fish of the Colorado River.	Water depletions may affect but use is less than 100 acre-feet, no mitigation required.
Bald Eagle	T	Nests in tall trees such as Cottonwoods.	No Cottonwoods or tall trees in 4 th East portal area.
Mexican Spotted Owl	T	Nests in areas with >40% slope.	Project and project area <5% slopes.
Western Yellow-billed Cuckoo	C	Occurs in riparian areas at least 30 feet wide.	No riparian zones within 4 th E. Portal area.
Black-footed Ferret	E	Historically within range.	Prairie dog towns within .5 miles of project area. Considered extirpated from Emery County.

A recommendation that the 4th East Portal project will not affect any listed species or their critical habitat will be made to the USFWS. This finding is based on the T and E surveys conducted by Mt. Nebo Scientific in May 2002 (Appendix VIII-1).

Active and abandoned Prairie dog towns are found within the permit area (Plate 10-1) and Burrowing Owls were reported in 1983. Mt. Nebo Scientific conducted surveys for Burrowing Owls at the two prairie dog towns within .5 miles of the project area and at and additional two within a mile of the 4th East Portals. No owls were observed during the survey.

Findings:

The information provided in the permit application is considered adequate to meet the Fish and Wildlife Resource requirements for development of the 4th East Portals. However, prior to beginning mining the recommended wildlife studies should be conducted.

SOILS RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.21; 30 CFR 817.22; 30 CFR 817.200(c); 30 CFR 823; R645-301-220; R645-301-411.

Analysis:

The proposed disturbed area is 22.55 acres. The proposed affected area is 15.05 acres. The difference between the two areas reflects the Permittee's willingness to change the disturbed area boundary to avoid disturbance to the Ferron soils associated with the wetland area.

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resource information in the permit entitled "Soil Resources Report at the 4th East Portal," compiled by James Nyenhuis, Certified Professional Soil Scientist. The summary report includes the most recent NRCS map unit descriptions (Appendix C), typical soil profile descriptions (Appendix A) and salvage depth recommendations for the map units within the proposed disturbed area (Table 1).

An Order 1 Soils Map of the 4th East Portal was created using the James P. Walsh & Associates 1981 Soil Survey in the MRP. Five map units were distinguished:

- Castle Valley extremely stony very fine sandy loam, 0 – 20% slopes, eroded;
- Ferron silt loam, heavy variant, 0 – 3% slopes;
- Killpack silty clay loam, 0 – 3% slopes;
- Persay-Chipeta complex, 1 – 20% slopes; and
- Rock Land.

Only three of these map units (Castle Valley, Persayo-Chipeta complex and Rock Land) are in the affected area (see Table 1 and Soils Map).

Castle Valley, Ferron and Persayo soils were sampled within the permit area and laboratory results are located in Appendix B. Information on Chipeta soils in Appendix B comes from the Carbon-Emery Area soil survey.

The Soil Resources Report at the 4th East Portal relies upon information gathered from locations adjacent to the 4th East Portal site for Persayo, Chipeta, and Killpack soils. The study indicates that a site visit will be conducted prior to soil salvage operations and salvage depths will be re-evaluated and based upon field verification of soils. Areas of varying salvage depth will be staked. Field verification of the site by a soil scientist may also provide a delineation between the Chipeta and Persayo soils on the Order 1 Map. Prior to disturbance of the 4th East Portal site, Consol must relay the information gathered by the consulting soil scientist to the Division.

Findings:

The information provided is adequate for the purposes of the regulations, with the following stipulation, in accordance with the requirements of:

R645-301-211, Prior to disturbance of the 4th East Portal site, Consol must relay the information concerning map unit delineation and salvage depths gathered by the consulting soil scientist to the Division.

OPERATION PLAN

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-230.

Analysis:

Removal and Storage

Castle Valley or Hideout Soil Series covers 3.76 acres of the proposed affected area. The recommended salvage depth for this Series is 12 inches.

The Persayo-Chipeta Complex covers 6.04 acres of the proposed affected area. The recommended salvage depth for this Complex is 18 inches within the Persayo soil and 6 inches within the Chipeta Soil.

The weighted average soil stripping depth reported in Table 1.1 of the Soil Resources Report at the 4th East Portal is 6.4 inches. This average reflects the high percentage of Chipeta soil in the proposed Affected Area.

The Permittee anticipates salvage of 12, 952 cubic yards of soil.

The Division recommends that the surface layer of soil is removed with the vegetation and set aside for application to the surface of the topsoil pile after gouging. The surface layer of soil is valuable for it contains seeds, microorganisms, organic matter, elevated levels of nitrogen and phosphorus.

The Division also recommends that the topsoil pile is roughened according to the outline provided in the Practical Guide to Reclamation (DOGM, 2000), available at <http://dogm.nr.state.ut.us>.

Based upon the results of the test plots at the Emery Mine (see 1991 Annual Report), where it was established that "the most important consideration for revegetation success appears to be moisture availability," the Division recommends that the topsoil pile is irrigated during the first summer season. Jayne Belnap also makes this recommendation in her paper entitled "Cryptobiotic Soil Crusts: Basis for Arid Land Restoration (Utah)," Restoration and Management Notes 12:1 Summer 1994.

Findings:

The information provided is adequate for the purposes of the regulations, with the following stipulation, in accordance with the requirements of:

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R645-301-731, Prior to construction the area shown as saltgrass on the Vegetation Map in Appendix VIII-1 must be flagged and not disturbed until the U.S. Army Corps of Engineers has determined if the area is a jurisdictional wetland.

R645-301-234.230, The Permittee must salvage the surface soils (from 0 – 2 inches) during vegetation removal and reapply the vegetation and soil mix as mulch to the surface of the gouged topsoil stockpile, unless other methods are demonstrated to be as effective.

USE OF EXPLOSIVES

Regulatory Reference: 30 CFR Sec. 817.61, 817.62, 817.64, 817.66, 817.67, 817.68; R645-301-524.

Analysis:

The area to be blasted includes slickrock drainage. The Division recommends that the Permittee remove the slickrock in large slabs so that they can be reapplied to the surface during final reclamation.

Findings:

The information provided in the permit is considered adequate to Use of Explosives requirements for development of the 4th East Portals. However the Permittee could enhance reclamation by salvaging large slabs of slickrock during blasting and utilizing them either on the surface or in the reconstructed drainage.

RECOMMENDATIONS:

The stipulations and recommendations discussed above should be incorporated into the approval.